

X is selected from the group consisting of -O-, -NR<sub>a</sub>-, and -S-, where Ra is selected from the group consisting of hydrogen, alkyl, aryl, heteroaryl, acyl, hydroxy, alkoxy, aryloxy, heteroaryloxy, amino, alkylamino, dialkylamino, and acylamino.

CS 42. (New) The combinatorial library of claim 12, wherein:  
the compound of formula 14 is a carbohydrate selected from the group consisting of ribose, arabinose, xylose and arabinose; and  
the combinatorial library includes a plurality of amino sugars.

SUB 43. (New) The combinatorial library of claim 12, wherein:  
one of the compounds of formula 13, 14, or 15 or 19 is connected to a solid support.--

---

#### REMARKS

Claims 12 and 18-35 were pending. Claims 12, 19-21, 29 and 34-35 have been amended. Claims 22-28 and 30-33 have been cancelled without prejudice. New claims 36-43 have been added. No new matter has been added.

In response to the action mailed March 27, 2002, the applicant reaffirms its election of the invention of Group I drawn toward a combinatorial library as recited in claim 12, and thanks the Examiner for extending the courtesy of a telephonic interview, during which the applicant's undersigned representative sought clarification of the Notice of Non-Responsive Amendment.

The applicant now understands the Examiner to be requesting election of a species of combinatorial library for purposes of search. In response to the election of species requirement, the applicant provisionally elects a combinatorial library of  $\alpha$ -amino acids having a core framework of structure 1 and wherein the carbonyl component (the compound of formula 14) is glyoxylic acid (HCOCOOH), and including at least the compounds prepared in Examples 1, 2, 3, 6, 8, 9, 10, 11, 12, 14, 15, 18, 22, 23, 24 and 25. Claim 38 reads on the elected species. Claims 12, 18, 19, 20, 21, 29, 35, 36, 37, 39 and 43 are generic to the elected species.


Applicant : Nicos A. Petasis and Maria A. Zavialov  
Serial No. : 09/699,076  
Filed : October 27, 2000  
Page : 8

Attorney's Dock No.: 06666-005002 / USC 2616

A check in the amount of \$110.00 for a one month extension of time is enclosed. No other fees are believed to be due at this time. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 5/28/02

  
\_\_\_\_\_  
Timothy A. Porter  
Reg. No. 41,258

Fish & Richardson P.C.  
500 Arguello Street, Suite 500  
Redwood City, California 94063  
Telephone: (650) 839-5070  
Facsimile: (650) 839-5071

**Version with markings to show changes made**

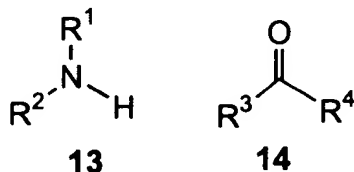
**In the claims:**

Claims 22-28 and 30-33 have been cancelled without prejudice.

Claims 12, 19-21, 29 and 34-35 have been amended as follows:

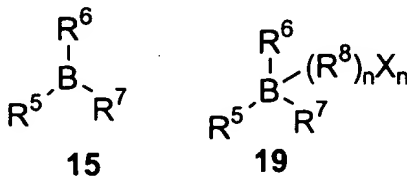
12. (Twice amended) A combinatorial library including a plurality of compounds, one or more of the plurality of compounds in the combinatorial library being prepared by a process comprising:

providing compounds of formula 13 and formula 14



where  $\text{R}^1$  and  $\text{R}^2$  are each independently selected from the group consisting of hydrogen, alkyl, cycloalkyl, aryl, heteroaryl, acyl, acylalkyl, carboxy, carboxamido, trialkylsilyl, aryldialkylsilyl, diarylalkylsilyl, triarylsilyl, phosphinyl, and -YR, where Y is selected from the group consisting of -O-, -NR<sub>a</sub>-, -S-, -SO-, and -SO<sub>2</sub>-, and R and R<sub>a</sub> are each independently selected from the group consisting of hydrogen, alkyl, aryl, heteroaryl, and acyl, or  $\text{R}^1$  and  $\text{R}^2$  together form a methylene bridge of 2 to 20 carbon atoms; and where  $\text{R}^3$  and  $\text{R}^4$  are each independently selected from the group consisting of hydrogen, carboxy, carboxamido, alkyl, cycloalkyl, aryl and heteroaryl provided that the compound of formula 14 is not paraformaldehyde;

providing compounds of formula 15 or formula 19



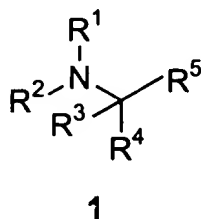
where  $R^5$  is selected from the group consisting of alkyl, cycloalkyl, aryl, heteroaryl, alkenyl, alkynyl and allenyl;  $R^6$ ,  $R^7$  and  $R^8$  are selected from the group consisting of hydroxy, alkoxy, aryloxy, heteroaryloxy, chloro, bromo, fluoro, iodo, carboxy, amino, alkylamino, dialkylamino, acylamino, carboxamido, thio, alkylthio, arylthio, acylthio, alkyl, cycloalkyl, aryl, and heteroaryl, or together form a methylene bridge of 3 to 7 atoms; X is a positive counter ion, and n is 0 or 1;

mixing said compounds of formula 13, formula 14, and formula 15 or 19 to form a reaction mixture; and

allowing the reaction mixture to react to form the compound in the combinatorial library.

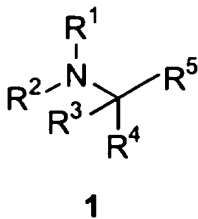
19. (Amended) The combinatorial library of claim [18]12, wherein:

said combinatorial library is prepared by reacting a plurality of different compounds of one or more of formula 13, formula 14, formula 15 and/or formula 19 to generate [the] a plurality of compounds of formula 1:



20. (Amended) The combinatorial library of claim [19]12, wherein:

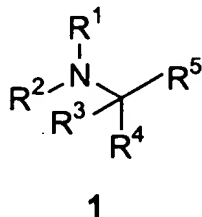
said combinatorial library includes a mixture of different compounds of formula 1:



said mixture being prepared from a reaction mixture including a plurality of different compounds of one or more of formula 13, formula 14, formula 15, and/or formula 19.

21. (Amended) The combinatorial library of claim 18, wherein:

said combinatorial library includes a plurality of different compounds of formula 1:



each of the plurality of different compounds of formula 1 being located at a different position in an array.

29. (Amended) The combinatorial library of claim [18]12, wherein:

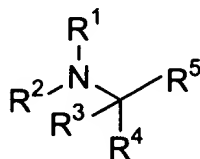
[the combinatorial library is formed by ] mixing the compounds of formula 13, formula 14 and formula 15 or 19 to form a reaction mixture includes mixing the compounds of formula 13, formula 14 and formula 15 or 19 in the presence of air.

34. (Amended) The combinatorial library of claim [18]12, wherein:

said reaction mixture includes at least one compound of formula 14 for which R<sup>3</sup> is hydroxyaryl and at least one of the compounds of formula 1 is an amino phenol.

35. (Amended) The combinatorial library of claim [18]12, wherein:

at least one of the compounds of formula 13, 14, 15 or 19 is chiral and the combinatorial library includes at least one of the compounds of formula 1 that is produced stereoselectively:



1